

Published in Australia

See in particular claim 2 for automatically transfer incoming calls
JAPAN PATENT AGENCY (JP)

PATENT GAZETTE (A) No.219740 of 1987

Publication of Patent Application

51 Int Cl.⁴ Identification mark Internal Agency Number
 5 11 04 M 1/64 D-7608-5K
 11/00 7345-5K

43 Publication date: 28th September 1987

Examination: Not requested Number of Claims: 2 (Total 4 pages)

54 Title of Invention: Telephone Handset

21 Patent Application Number 60699 of 1986

22 Date of Application: 20th March 1986

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SPECIFICATIONS

1. Title of the Invention

Telephone Handset

2. Claims

- (1) A telephone handset characterized by a memory medium which records schedules and which records in the schedules contact locations at different times of day when the user is absent, and read/write circuits which read and write in the memory medium in the

schedules and in the schedules the contact locations at different times of day when the user is absent, and a timer which transmits time information when incoming calls are received, and a control circuit which, when an incoming call is received, receives the time information from the timer and then reads the aforementioned schedule, and when
5 according to the schedule the user is absent, reads the contact location for the user for that time, and sends such information to the caller.

- (2) A telephone handset characterized by a memory medium which records schedules and which records in the schedules contact telephone numbers at different times of day when
10 the user is absent, and read/write circuits which read and write in the memory medium in the schedules and in the schedules the contact telephone numbers at different times of day when the user is absent, and a timer which transmits time information when incoming calls are received, and a control circuit which, when an incoming call is received, receives the time information from the timer and then reads the aforementioned
15 schedule, and when according to the schedule the user is absent, reads the contact telephone number for the user for that time, and automatically transfers the incoming call.

20 3. Detailed Description of the Invention

Applicable area of industry

This invention relates to a telephone handset which automatically processes incoming calls when the user is absent.

25 Prior art

Hitherto, when an incoming call arrived when the user was absent, a message and the location were recorded on a tape and so forth beforehand in the telephone handset answering machine and were communicated to the caller, or automatic incoming call forward handsets automatically forwarded the incoming call to a pre-set telephone number.

30 However, such telephone handset answering machines and automatic incoming call forward handsets required that the user examine a schedule before his absence and enter the location or call forward number settings prior to the user's absence, and such operations were troublesome.

35 Moreover, when the user is absent, the user may with the passage of time move to a plurality of locations, and hence the recorded message in the answering machine relating to the location of the user which is played when an incoming call is received may be very long, such as for

example that the user will be at X between A hours and B hours, at Y between B hours and C hours, and at Z between C hours and D hours, and hence this method is inefficient, while if an incoming call forward telephone handset is employed, the call forward location settings must be modified with the passage of time.

The present invention was devised in order to overcome such deficiencies, and hence it is an objective of the present invention to provide a telephone handset which is able to process incoming calls efficiently when the user is absent and is moving between a plurality of locations over time.

Means employed in order to overcome such deficiencies

The first Claim for the present invention provides for a telephone handset characterized by a memory medium which records schedules and which records in the schedules contact locations at different times of day when the user is absent, and read/write circuits which read and write in the memory medium in the schedules and in the schedules the contact locations at different times of day when the user is absent, and a timer which transmits time information when incoming calls are received, and a control circuit which, when an incoming call is received, receives the time information from the timer and then reads the aforementioned schedule, and when according to the schedule the user is absent, reads the contact location for the user for that time, and sends such information to the caller.

The second Claim for the present invention provides for a telephone handset characterized by a memory medium which records schedules and which records in the schedules contact telephone numbers at different times of day when the user is absent, and read/write circuits which read and write in the memory medium in the schedules and in the schedules the contact telephone numbers at different times of day when the user is absent, and a timer which transmits time information when incoming calls are received, and a control circuit which, when an incoming call is received, receives the time information from the timer and then reads the aforementioned schedule, and when according to the schedule the user is absent, reads the contact telephone number for the user for that time, and automatically transfers the incoming call.

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Claims

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Action

Under the first Claim for the present invention, when an incoming call arrives, the control circuit reads the schedule for that time from the memory medium, and if the schedule shows that the user is absent at that time, the control circuit reads from the memory medium the contact location for the user for that time and communicates the contact location to the caller.

second ?

Under the first Claim for the present invention, when an incoming call arrives, the control circuit reads the schedule for that time from the memory medium, and if the schedule shows that the user is absent at that time, the control circuit reads from the memory medium the contact telephone number for the user for that time, and automatically transfers the incoming call.

Practical embodiments

Figure 1 illustrates practical embodiment of the first Claim for the present invention wherein 1 is a communications circuit, 2 is an outgoing call circuit, 3 is a control circuit, 4 is an incoming call circuit, 5 is an electronic hook switch, 6 is a memory medium, 7 is a read/write circuit, 8 is a timer, 9 is a handset, 10 is a dial, 11 is a sounder, and 12 is the schedule setting keys.

The following is a description of the operation of the practical embodiment.

First, if the user expects to be absent, the user first records from the read/write circuit 7 by means of the dial 10 and the schedule setting keys 12 into the memory medium 6 the schedule and the contact locations for each time during the user's absence in the schedule. Then, when an incoming call arrives, the incoming call circuit 4 is activated and the control circuit 3 is activated simultaneously, and on the basis of the time information which is sent from the timer 8, the schedule for that time is read through the read/write circuit 7 from the memory medium 6. Then, if the schedule that has been read shows that the user is not absent, the normal operations for an incoming call are performed and the sounder 11 is activated, but if the schedule that has been read shows that the user is absent, the control circuit 3 causes the electronic hook switch 5 to switch to the communications circuit 1, whereupon the control circuit 3 reads from the memory medium 6 the contact address and the message for that time and sends them through the communications circuit 1 to the network. In this manner, the caller is advised more accurately and more promptly the contact address and the message from the called party.

A magnetic card or IC card is employed for the memory medium 6 which is portable, and hence once a schedule pattern has been set such schedule pattern may be retained, and the memory medium 6 may simply be exchanged, without the necessity for the burdensome operations of resetting the same schedule pattern and contact locations.

Figure 2 is a diagram of the constitution of a practical embodiment of the second Claim for the present invention, wherein the symbols employed in Figure 1 possess the same meanings, and additionally, 5a and 5b are electronic hook switches, 13 is a control circuit, and 16 is a memory medium.

First, if the user expects to be absent, the user first records from the read/write circuit 7 by means of the dial 10 and the schedule setting keys 12 into the memory medium 16 the schedule and the contact telephone numbers for each time during the user's absence in the schedule. Then, if for example, an incoming call comes to the electronic hook switch 5a, the incoming call circuit 4 is activated and the control circuit 13 is activated simultaneously, and on the basis of the time information which is sent from the timer 8, the schedule for that time is read through the read/write circuit 7 from the memory medium 16. Then, if the schedule that has been read shows that the user is not absent, the normal operations for an incoming call are performed and the sounder 11 is activated, but if the schedule that has been read shows that the user is absent, the control circuit 13 causes the electronic hook switch 5b to switch to the communications circuit 1, whereupon the control circuit 3 reads from the memory medium 16 the contact telephone number for that time and sends it to the outgoing call circuit 2. The outgoing call circuit 2 makes an outgoing call connection to the forward telephone number, and the electronic hook switch 5a simultaneously switches to the communications circuit 1, and in this manner the incoming call is automatically forwarded. Consequently, the present invention allows the user to be contacted with greater certainty when the user is absent and is moving between a plurality of locations. *(It is obvious that several addresses can be used.)*

A magnetic card or IC card and so forth is employed for the memory medium 16 which is portable, and hence once a schedule pattern has been set such schedule pattern may be retained, and the memory medium 16 may simply be exchanged, without the necessity for the burdensome operations of resetting the same schedule pattern and forward telephone numbers.

Effects of the present invention

The first Claim for the present invention as described in the foregoing provides for a telephone handset characterized by a memory medium which records schedules and which records in the schedules contact locations at different times of day when the user is absent, and read/write circuits which read and write in the memory medium in the schedules and in the schedules the contact locations at different times of day when the user is absent, and a timer which transmits time information when incoming calls are received, and a control circuit which, when an incoming call is received, receives the time information from the timer and then reads the aforementioned schedule, and when according to the schedule the user is absent, reads the contact location for the user for that time, and sends such information to the caller, and hence even when the user moves between a plurality of locations over time, the contact addresses for the user may be speedily and efficiently communicated to the caller.

The second Claim for the present invention provides for a telephone handset characterized by a memory medium which records schedules and which records in the schedules contact telephone numbers at different times of day when the user is absent, and read/write circuits which read and write in the memory medium in the schedules and in the schedules the contact telephone numbers at different times of day when the user is absent, and a timer which transmits time information when incoming calls are received, and a control circuit which, when an incoming call is received, receives the time information from the timer and then reads the aforementioned schedule, and when according to the schedule the user is absent, reads the contact telephone number for the user for that time, and automatically transfers the incoming call, and hence even when the user moves between a plurality of locations over time, the user may be contacted more accurately, and incoming calls are processed efficiently.

4. Simplified Description of the Diagrams

Figure 1 is a diagram of the constitution of a practical embodiment of the first Claim for the present invention, and Figure 2 is a diagram of the constitution of a practical embodiment of the second Claim for the present invention.

In the diagrams, 1 is a communications circuit, 2 is an outgoing call circuit, 3 and 13 are control circuits, 4 is an incoming call circuit, 5, 5a and 5b are electronic hook switches, 6 and 16 are memory media, 7 is a read/write circuit, 8 is a timer, 9 is a handset, 10 is a dial, 11 is a sounder, and 12 is the schedule setting keys.

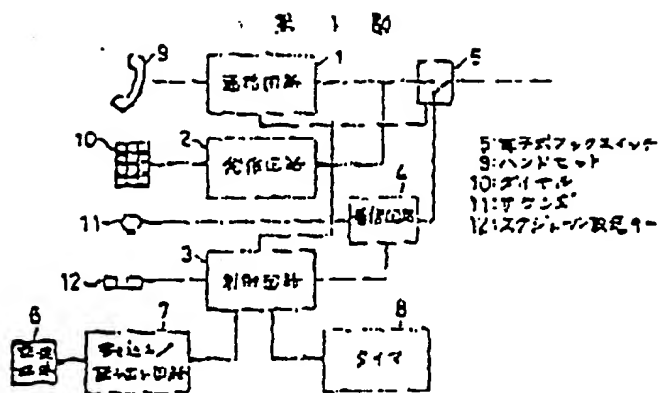


Figure 1

1: Communications circuit; 2: Outgoing call circuit; 3: Control circuit; 4: Incoming call circuit; 5: Electronic hook switch; 6: Memory medium; 7: Read/write circuit; 8: Timer; 9: Handset; 10: Dial; 11: Sounder; 12: Schedule setting keys

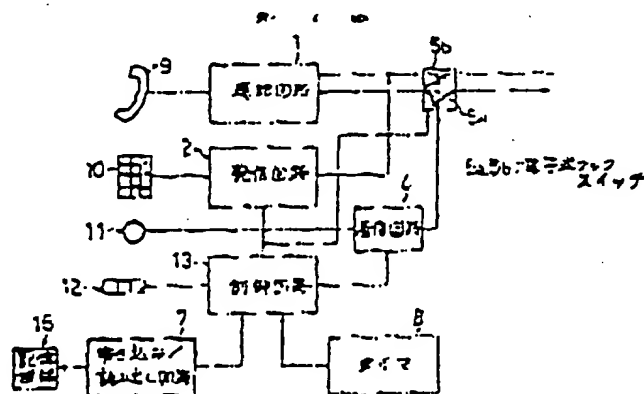


Figure 2

1: Communications circuit; 2: Outgoing call circuit; 4: Incoming call circuit; 5a, 5b: Electronic hook switches; 7: Read/write circuit; 8: Timer; 13: Control circuit; 16: Memory medium